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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,844	05/29/2001	Stein A. Lundby	QCPA614D1	8064
23696	7590	11/30/2004	EXAMINER	
Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			LEE, ANDREW CHUNG CHEUNG	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/867,844

Applicant(s)

LUNDBY ET AL.

Examiner

Andrew C Lee

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05-29-01.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 2, the referenced terms "20A" and "20M"; Fig. 4, the referenced terms "74A" and "74B"; Fig. 6, the referenced terms "100", "102", "104", "106" and "108".  
Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
  
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Page 3, lines 10 to 20, the reference elements "20a-n" as disclosed; page 5, lines 19 – 26; page 6, lines 1 –2, the referenced elements "74a-n" as disclosed. Page 6, line 15, the referenced element "100". Page 7, lines 23 – 26, the referenced element

"prediction algorithm 120". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities:
  - a) Page 3, lines 10 – 21, there are some discrepancies for the Fig. 2 description.  
The referenced elements "20a-n" for transmission waveforms have been disclosed for describing Fig. 2, but the drawing using different reference elements instead (20A...20M).
  - b) For Fig. 3, there is some discrepancies for the referenced element "54" for the second waveform as disclosed.
  - c) Page 5, lines 19 – 26, and page 6, lines 1 – 2, there are some discrepancies for the Fig. 3 description. The referenced elements "74a-n" for transmission waveforms have been disclosed for describing Fig. 3, but the drawing using different reference elements instead (74A ...74B). The referenced element

- "t0" indicated in Fig. 4 should be corrected as "t<sub>0</sub>" as disclosed in the description (page 6, line4)
- d) Page 6, line 15, the referenced element " 100" as disclosed in the description, but it is not indicated in the Fig.5.
  - e) Fig. 6, the referenced elements "100, 102, 104, 106, and 108" are indicated in the Figure, but it is not disclosed and mentioned in the description on page 7.
  - f) Page 8, line 18, the referenced term "cyclk()" should be corrected as "cycl<sub>k</sub>()".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over aroia et al. (U.S. Patent No. 6711120 B1) in view of Bunc (U.S. Patent No. 6760320 B1).

Regarding Claims 1 and 5, Laroia et al. discloses the limitation of a method and system comprising: providing a transmit waveform (Fig. 1, Fig. 2; column 5, lines 6 – 10); selecting a non-fixed individual time offset for the waveform according to an algorithm (column 3, lines 16 – 19); and delaying transmission of the waveform by the

non-fixed time offset (Fig. 7, column 7, lines 47 – 53). Larioa et al. does not disclose a method and system for limiting peak transmit power in a wireless communication system. Bunc discloses the limitation of a method and system for limiting peak transmit power in a wireless communication system (column 1, lines 6 - 10). It would have been obvious to modify Larioa et al. to include a method and system for limiting peak transmit power in a wireless communication system such as that taught by Bunc in order to achieve maximum frequency diversity and averages the intercell interference.

Regarding Claims 2 and 6, Laroia et al. discloses the limitation of a method and system of claimed wherein the algorithm comprises selecting a time offset by determining which of a possible set of offsets is being used by a lowest number of waveforms (Fig. 7, column 4, lines 60 – 67; column 5, lines 1 – 5). Laroia et al. does not disclose a method and system for limiting peak transmit power in a wireless communication system. Bunc discloses the limitation of a method and system for limiting peak transmit power in a wireless communication system (column 1, lines 6 - 10). It would have been obvious to modify Larioa et al. to include a method and system for limiting peak transmit power in a wireless communication system such as that taught by Bunc in order to achieve maximum frequency diversity and averages the intercell interference.

Regarding Claims 3 and 7, Laroia et al. discloses the limitation of a method and system of claimed wherein the algorithm comprises selecting a time offset by

determining which of a possible set of offsets is being used by a lowest number of waveforms (Fig. 7, column 4, lines 60 – 67; column 5, lines 1 – 5). Laroia et al. does not disclose a method and system for limiting peak transmit power of claimed wherein the algorithm comprises a peak power algorithm adapted to provide a minimum increase in the peak transmit power according to the shape or expected shape of the transmit waveform. Bunc discloses the limitation of a method and system for limiting peak transmit power of claimed wherein the algorithm comprises a peak power algorithm adapted to provide a minimum increase in the peak transmit power according to the shape or expected shape of the transmit waveform (column 1, lines 64 – 66; column 2, lines 59 – 62). It would have been obvious to modify Larioa et al. to include a method and system for limiting peak transmit power of claimed wherein the algorithm comprises a peak power algorithm adapted to provide a minimum increase in the peak transmit power according to the shape or expected shape of the transmit waveform such as that taught by Bunc in order to achieve maximum frequency diversity and averages the intercell interference.

Regarding Claims 4 and 8, Laroia et al. discloses the limitation of a method and system of claimed wherein the algorithm comprises selecting a time offset by determining which of a possible set of offsets is being used by a lowest number of waveforms (Fig. 7, column 4, lines 60 – 67; column 5, lines 1 – 5). Laroia et al. does not disclose a method and system for limiting peak transmit power of claimed wherein the algorithm comprises a heuristic algorithm. Bunc discloses the limitation of a method and

system for limiting peak transmit power of claimed wherein the algorithm comprises a heuristic algorithm (Abstract, lines 3 – 8; Fig 3, elements S6; column 6, Claim 1, lines 49 – 60). It would have been obvious to modify Larioa et al. to include a method and system for limiting peak transmit power of claimed wherein the algorithm comprises a heuristic algorithm such as that taught by Bunc in order to achieve maximum frequency diversity and averages the intercell interference.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL  
19 November 2004

  
**Ajit Patel**  
**Primary Examiner**